

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant(s) : Mary E. Pierce

Application No. : 09/737,109

Filed : December 14, 2000

Entitled : **LOW BORON CONTAINING MICROFIBER
GLASS FILTRATION MEDIA**

Docket No. : 72545-37

Group Art Unit: 1771

Examiner: A. Wachtel

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Feb. 6, 2004

Date of Signature and Mail Deposit

By:

Lisa J. Michaud, Reg. No: 44,238

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

REQUEST FOR ACKNOWLEDGEMENT OF REFERENCES CONSIDERED

Dear Sir:

Applicants hereby request that the Examiner initial the attached PTO Form SB/08 and PTO Form 1449 indicating that the references cited in Information Disclosure Statements (IDS) filed on March 20, 2001 and February 26, 2002 were considered. Copies of the Information Disclosure Statements filed on such dates, along with the return postcard receipts, are enclosed herewith. The Examiner should have considered these references as the IDS's were filed prior to the mailing date of a first Office Action on the merits.

Accordingly, acknowledgement that the cited references have been considered by the Examiner is respectfully requested.

Respectfully submitted,

Date: February 6, 2004

Lisa J. Michaud, Reg. No. 44,238
Attorney for Applicant(s)

Nutter, McClennen & Fish, LLP
155 Seaport Boulevard
Boston, MA 02210
Tel: (617)439-2550
Fax: (617)310-9550



Title: Low Boron Containing Micro Fiberglass Filtration Medi

Application of Mary E. Pierce

* The Following, DUE March 14, 2001 in the U.S. PTO, was received in Mail Room on the date stamped hereon:

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☐ Application for Patent inc. _____ pgs.

(_____ pgs.) Specification, (_____ pgs.) Abstract,

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☐ Declaration Petition / Power of Attorney

☐ Design Patent Application & Declaration & Oath

☐ Drawings _____ Sheet(s) ☐ Formal ☐ Informal
(Figs. _____)

☐ Verified Statement to establish a small entity status

☐ Continuing prosecution app under 37 CFR 1.53(d)

☐ Assignment & Recordation Cover Sheet

☐ Revocation of Power of Attorney & Appointment
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☐ Bibliographic Data Sheet

☐ Other

☒ Inf. Disc. Statement, PTO Form 1449, and 12
Reference(s) Cited

☐ PCT Request 101 (_____ sheets)

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☐ PCT Fee/Calculation/Authorization Sheet

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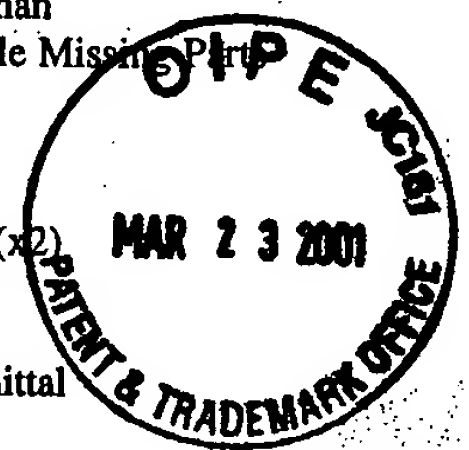
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☐ Petition for Ext. of Time(x2)

☐ Transmittal Letter

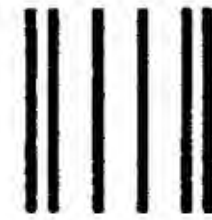
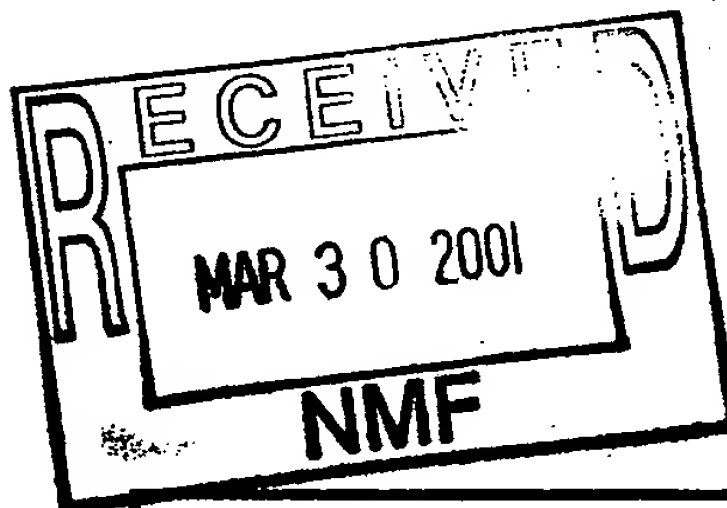
☐ Fee Transmittal Letter

☐ Maintenance Fee Transmittal

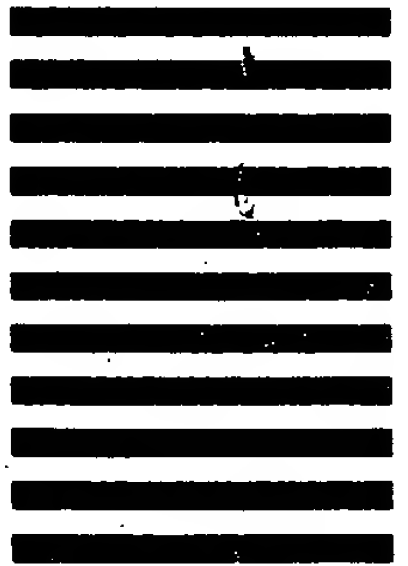


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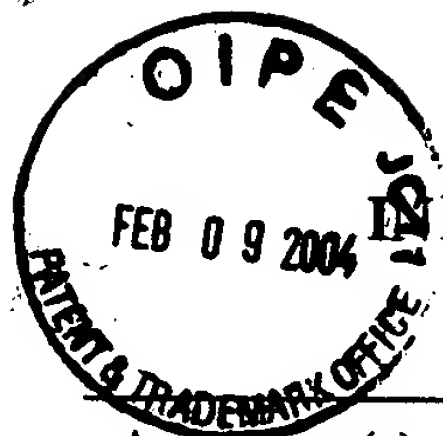
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PATENT



THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant(s) : Mary E. Pierce
Application No. : 09/737,109
Filed : December 14, 2000
Entitled : **LOW BORON CONTAINING
MICROFIBERGLASS FILTRATION
MEDIA**
Docket No. : 72545-37

Group Art Unit: Not Yet Assigned

Examiner: Not Yet Assigned

Certificate of Mailing (37 C.F.R. 1.8(a))

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March 20, 2001

Date of Signature and Mail Deposit

By:

Lisa J. Michaud

Reg. No: 44,238

Attorney for Applicant(s)

INFORMATION DISCLOSURE STATEMENT

Assistant Commissioner for Patents
Washington, DC 20231

Dear Sir:

Pursuant to 37 C.F.R. §1.56, §1.97 and §1.98, Applicant herewith makes of record the following references. A copy of each cited reference, and PTO Form 1449 accompanies this filing. In accordance with §1.97(b), this statement is being filed before the mailing of a first Office Action.

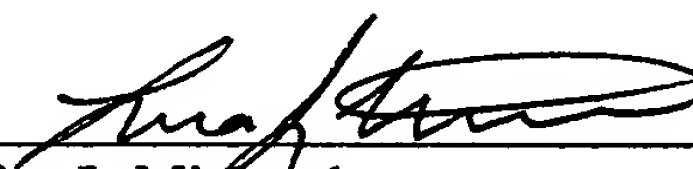
<u>Patent Number</u>	<u>Inventor(s)</u>
U.S. Patent 3,847,626	Erickson et al.
U.S. Patent 3,847,627	Erickson et al.
U.S. Patent 3,876,481	Erickson et al.
U.S. Patent 3,929,497	Clark-Monks
U.S. Patent 4,026,715	Erickson et al.
U.S. Patent 4,166,747	Neely, Jr.
U.S. Patent 4,199,364	Neely
U.S. Patent 4,396,722	Rapp
U.S. Patent 4,542,106	Sproull
U.S. Patent 5,789,329	Eastes et al.
British Patent 520,427	Cassani et al.
E.P.O. 1 074 521	Xu et al.

This statement is not to be interpreted as a representation that the cited publications are material, that an exhaustive search has been conducted, or that no other relevant information exists. Nor shall the citation of any publication herein be construed *per se* as a representation that such publications are prior art. Moreover, the Applicant understands the Examiner will make an independent evaluation of the cited publications.

No fee is believed to be due in connection with the filing of this paper. However, if any fee is due, the Commissioner is hereby authorized to charge payment of any such fees to Deposit Account No. 141449.

Respectfully submitted,

Date: March 20, 2001



Lisa J. Michaud
Reg. No. 44,238
Attorney for Applicant(s)

Nutter, McClennen & Fish, LLP
One International Place
Boston, MA 02110-2699
Tel: (617)439-2550
Fax: (617)310-9550
969837.1

Form PTO-1449
(Rev. 8-83)U.S. DEPARTMENT OF COMMERCE
PATENT AND TRADEMARK OFFICEATTY. DOCKET NO:
72545-37APPLICATION NO:
09/737,109

INFORMATION DISCLOSURE CITATION

(Use several sheets if necessary)

APPLICANT:
Mary E. PierceFILING DATE:
December 14, 2000GROUP ART UNIT:
Not Yet Assigned

U.S. PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER							DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE*
	AA	3	8	4	7	6	2	6	11/74	Erickson et al.	106	50	
	AB	3	8	4	7	6	2	7	11/74	Erickson et al.	106	50	
	AC	3	8	7	6	4	8	1	04/75	Erickson et al.	106	50	
	AD	3	9	2	9	4	9	7	12/75	Clark-Monks	106	50	
	AE	4	0	2	6	7	1	5	05/77	Erickson et al.	106	50	
	AF	4	1	6	6	7	4	7	09/79	Neely, Jr.	106	50	
	AG	4	1	9	9	3	6	4	04/80	Neely	106	50	
	AH	4	3	9	6	7	2	2	08/83	Rapp	501	35	
	AI	4	5	4	2	1	0	6	09/85	Sproull	501	38	
	AJ	5	7	8	9	3	2	9	08/98	Eastes et al.	501	36	

FOREIGN PATENT DOCUMENTS

		DOCUMENT NUMBER							DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION	
													YES	NO
	BA	5	2	0	4	2	7		09/38	Great Britain				
	BB	1	0	7	4	5	2	1	02/2001	EPO				

OTHER DOCUMENTS (including Author, Title, Date, Pertinent Pages, Etc.)

Examiner		
	Date Considered:	
	<p>*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and considered. Include copy of this form with next communication to applicant.</p>	

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Atty Dock t No.: 072545-0037

Inventor: Mary E. Pierce

Application No.: 09/737,109-Conf. #8505 Filing Date: December 14, 2000
Title: LOW BORON CONTAINING MICROFIBERGLASS FILTRATION MEDIA

D ocuments Fil d:

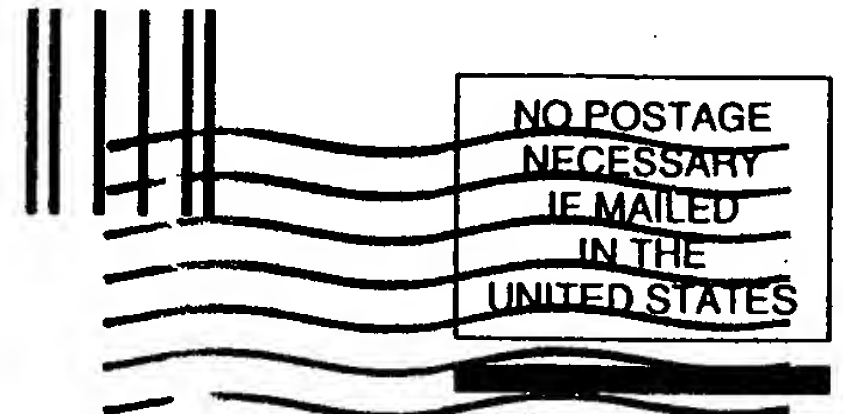
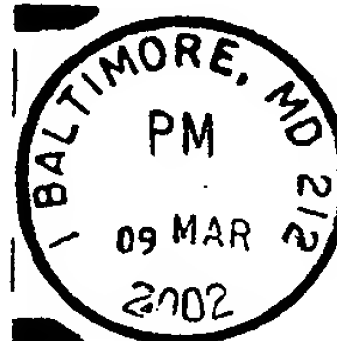
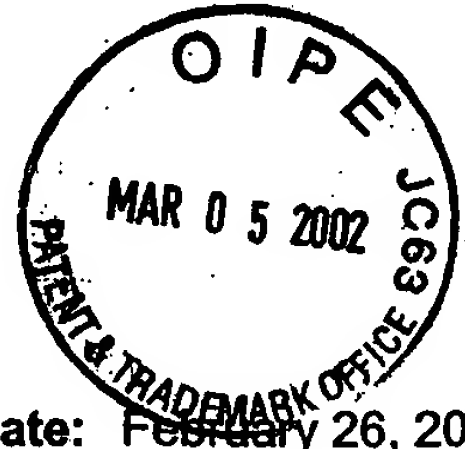
Supplemental Information Disclosure Statement (2 pages)
PTO-1449 Form w/ 14 (fourteen) references cited therein
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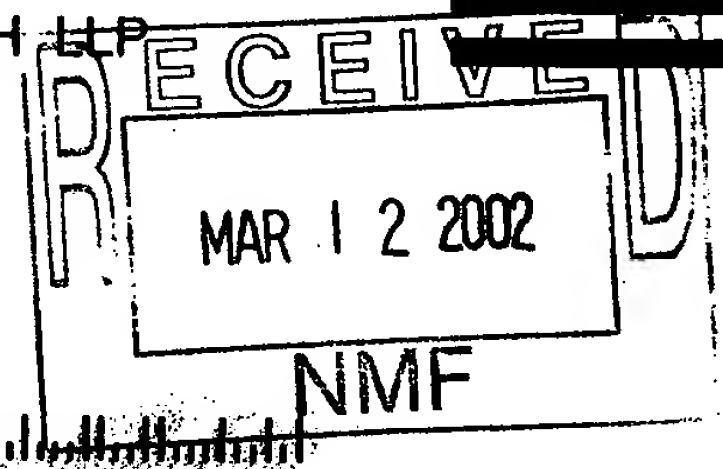


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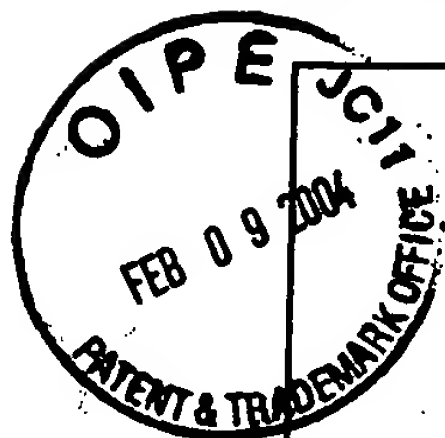
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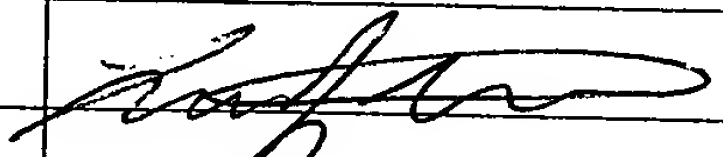
(to be used for all correspondence after initial filing)

		Application Number	09/737,109
		Filing Date	December 14, 2000
		First Named Inventor	Mary E. Pierce
		Group Art Unit	1772
		Examiner Name	Not Yet Assigned
Total Number of Pages in This Submission		Attorney Docket Number	072545-0037

ENCLOSURES (check all that apply)

<input type="checkbox"/> Fee Transmittal Form <input type="checkbox"/> Fee Attached <input type="checkbox"/> Amendment/Reply <input type="checkbox"/> After Final <input type="checkbox"/> Affidavits/declaration(s) <input type="checkbox"/> Extension of Time Request <input type="checkbox"/> Express Abandonment Request <input checked="" type="checkbox"/> Supp. Information Disclosure Statement <input type="checkbox"/> Certified Copy of Priority Document(s) <input type="checkbox"/> Response to Missing Parts/Incomplete Application <input type="checkbox"/> Response to Missing Parts under 37 CFR 1.52 or 1.53	<input type="checkbox"/> Assignment Papers (for an Application) <input type="checkbox"/> Drawing(s) <input type="checkbox"/> Licensing-related Papers <input type="checkbox"/> Petition <input type="checkbox"/> Petition to Convert to a Provisional Application <input type="checkbox"/> Power of Attorney, Revocation Change of Correspondence Address <input type="checkbox"/> Terminal Disclaimer <input type="checkbox"/> Request for Refund <input type="checkbox"/> CD, Number of CD(s) _____	<input type="checkbox"/> After Allowance Communication to Group <input type="checkbox"/> Appeal Communication to Board of Appeals and Interferences <input type="checkbox"/> Appeal Communication to Group (Appeal Notice, Brief, Reply Brief) <input type="checkbox"/> Proprietary Information <input type="checkbox"/> Status Letter <input checked="" type="checkbox"/> Other Enclosure(s) (please identify below) PTO-1449 Form w/ 14 (fourteen) references cited therein Return Postcard
<div>Remarks</div>		

SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT

Firm or Individual Name	NUTTER MCCLENNEN & FISH LLP Lisa J. Michaud
Signature	
Date	February 26, 2002

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Dated: February 26, 2002

Signature:  (Lisa J. Michaud)



PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant(s) : Mary E. Pierce
Application No. : 9/737,109
Filed : December 14, 2000
Entitled : **LOW BORON CONTAINING
MICROFIBERGLASS
FILTRATION MEDIA**
Docket No. : 72545-37

Group Art Unit: 1772

Examiner: Not Yet Assigned

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Feb. 26, 2002

Date of Signature and Mail Deposit

By:

Lisa J. Michaud, Reg. No: 44,238
Attorney for Applicant(s)

Commissioner for Patents
Washington, DC 20231

SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT

Dear Sir:

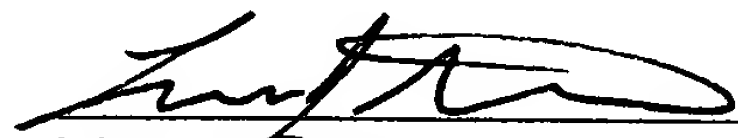
Pursuant to 37 C.F.R. §1.56, §1.97 and §1.98, Applicant hereby makes of record the enclosed documents listed on the attached copy of PTO/SB/08A (1449). In accordance with §1.97(b), this statement is being filed before the mailing of a first Office Action.

This statement is not to be interpreted as a representation that the cited publications are material, that an exhaustive search has been conducted, or that no other relevant information exists. Nor shall the citation of any publication herein be construed *per se* as a representation that such publications are prior art. Moreover, the Applicant understands the Examiner will make an independent evaluation of the cited publications.

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Respectfully submitted,

Date: 2/26/02

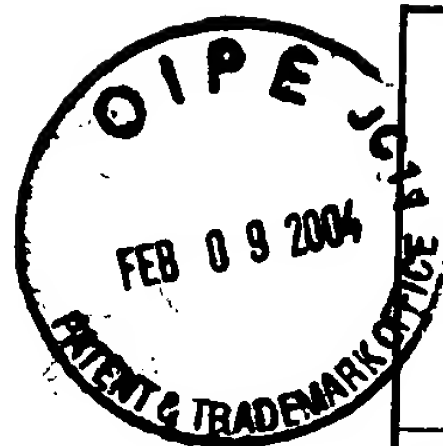


Lisa J. Michaud
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Attorney for Applicant(s)

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INFORMATION DISCLOSURE STATEMENT BY APPLICANT (use as many sheets as necessary)		Application Number	09/737,109 - 8505		
		Filing Date	December 14, 2000		
		First Named Inventor	Mary E. Pierce		
		Art Unit	1772		
		Examiner Name	Not Yet Assigned		
Sheet	1	of	1	Attorney Docket Number	72545-37

U.S. PATENT DOCUMENTS					
Examiner Initials*	Cite No. ¹	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number-Kind Code ² (if known)			
		4,687,697	08-18-1987	Cambo et al.	

FOREIGN PATENT DOCUMENTS						
Examiner Initials*	Cite No. ¹	Foreign Patent Document	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T ⁶
		Country Code ³ -Number ⁴ -Kind Code ⁵ (if known)				

¹ Applicant's unique citation designation number (optional). ² See attached Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the application number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶ Applicant is to place a check mark here if English language Translation is attached.

OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS			
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		Callinan et al., "The Manufacture and Properties of Paper Made From Ceramic Fibers," <i>NRL Report 4044, Washington, D. C.</i> , pp 1-7 (1952).	
		Gnann, A. J., "Evanite Glass Fiber Physical Properties and Measurement Techniques," Evans Products Comp., Oregon.	
		Hitachi Manufacturing Co., "Protection Countermeasure of Boron Pollution by Hepa Filter," Inspection Dept., pp 1-7.	
		Inoue et al., "Study on Boron Contamination in Clean Room," Takasago Thermal Engineering Co., Japan, pp 111-116.	
		J. C. Binzer Papierfabric GmbH, "New Technically Boron-Free Hepa Filter Materials," (1997).	
		Klocke et al., "Eliminating Boron From HEPA & ULPA Filters as a Source of Contamination in Cleanrooms," <i>The 10th International Conference on Advanced Technologies and Practices for Contamination Control, Report 4044</i> , pp 1-5 (1996).	
		Robertson, A. A., "Modification of the Mechanical Properties of Paper by the Addition of Synthetic Polymers," <i>Mechanical Effects of Adding Synthetic Polymers</i> , Montreal, Canada, pp 373-390.	
		"Standard Method for Evaluation of Air Assay Media by the Monodisperse DOP (Diocetyl Phthalate) Smoke Test," <i>ASTM Designation D 2986</i> , pp 629-632 (1971).	
		Stassen, W. N., "Dispersing Glass Fibers in the Wet Process," <i>Nonwovens / TAPPI Seminar Notes</i> , Owens-Corning Fiberglass Corp., Ohio, pp 7-12.	
		Stevie et al., "Boron Contamination of Surfaces in Silicon Microelectronics Processing: Characterization and Causes," <i>J. Vac. Sci. Technol. A</i> 9, Vol. 5, pp 2813-2815 (1991).	
		Tamaoki et al., "Manufacturing Process," Toshiba Microelectronics Corp., Japan.	
		"Testing HEPA and ULPA Filter Media IES-RP-CC021.1," <i>IES Institute of Environmental Sciences</i> , Mount Prospect, Illinois.	
		Wente et al., "Formation of Filter Materials From Glass Fibers," <i>Industrial and Engineering Chemistry</i> , Vol. 48, pp 219-222 (1956).	
		Yoshizaki et al., "Characteristics of Chemicals in the Clean Room Air," Sanki Engineering Co., Japan, pp 103-106 (1999).	

Examiner Signature		Date Considered	
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*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

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